

Customer No.: 31561
Application No.: 10/709,767
Docket No.: 13292-US-PA

To the Claims:

1. (currently amended) A printhead controller implemented within a printhead, comprising:

a ~~[[buffer-]]~~ circuit, for receiving an address signal and a selection signal, said ~~[[buffer-]]~~ circuit including a plurality of inverters connected in series, and outputting a switching[[buffer]] signal corresponding to said selection signal and said address signal; and

an ink jetting circuit, for receiving said switching[[buffer]] signal and determining whether or not to jet out ink based on said switching[[buffer]] signal.

2. (original) The printhead controller of claim 1, wherein said address signal is a working driving voltage of said ~~[[buffer-]]~~ circuit.

3. (canceled)

4. (currently amended) The printhead controller of claim ~~[[3]]~~1, wherein each of said inverters includes a FET.

5. (currently amended) The printhead controller of claim 4, wherein said ~~[[buffer-]]~~ circuit includes:

a first resistor, having a first terminal for receiving said address signal;

a first FET, having a first terminal being coupled to a second terminal of said first resistor and outputting an inverted signal, a second terminal for receiving said selection signal, and a third terminal being coupled to a ground;

a second resistor, having a first terminal for receiving said address signal; and

a second FET, having a first terminal being coupled to a second terminal of said second resistor and outputting said switching[[buffer]] signal, a second terminal for receiving said inverted signal, and a third terminal being coupled to said ground.

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6. (original) The printhead controller of claim 5, wherein a resistance of said first resistor and said second resistor range from $0.5k\Omega$ to $500k\Omega$.

7. (original) The printhead controller of claim 5, wherein a resistance of said first resistor and said second resistor range from $20k\Omega$ to $80k\Omega$.

8. (withdrawn) The printhead controller of claim 4, wherein said buffer circuit includes:

a first FET, having a first terminal for receiving said address signal, a second terminal coupled to said first terminal of said first FET, and a third terminal for outputting an inverted signal;

a second FET, having a first terminal being coupled to said third terminal of said first FET, and a second terminal for receiving said selection signal;

a third FET, having a first terminal being coupled to a third terminal of said second FET, a second terminal for receiving a second selection signal, and a third terminal being coupled to a ground;

a fourth FET, having a first terminal for receiving said address signal, a second terminal being coupled to said first terminal of said fourth FET, and a third terminal for outputting said buffer signal; and

a fifth FET, having a first terminal being coupled to said third terminal of said fourth FET, a second terminal for receiving said inverted signal, and a third signal being coupled to said ground.

9. (withdrawn) The printhead controller of claim 8, wherein said first FET is replaced by a first resistor, and said first resistor has a first terminal for receiving said address signal and a second terminal being coupled to said first terminal of said second FET.

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10. (withdrawn) The printhead controller of claim 8, wherein said second selection signal is said address signal.

11. (withdrawn) The printhead controller of claim 4, wherein said buffer circuit includes:

a first resistor, having a first terminal for receiving said address signal;

a first FET, having a first terminal being coupled to a second terminal of said first resistor and outputting an inverted signal, a second terminal for receiving said selection signal, and a third terminal being coupled to a ground;

a second FET, having a first terminal for receiving said address signal, a second terminal being coupled to said first terminal of said second FET, and a third terminal for outputting said buffer signal; and

a third FET, having a first terminal being coupled to said third terminal of said second FET, a second terminal for receiving said inverted signal, and a third terminal being coupled to said ground.

12. (withdrawn) The printhead controller of claim 11, wherein a resistance of said first resistor ranges from 0.5k Ω to 500k Ω .

13. (withdrawn) The printhead controller of claim 11, wherein a resistance of said first resistor ranges from 20k Ω to 80k Ω .

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14. (withdrawn) The printhead controller of claim 4, wherein said buffer circuit includes:
- a first resistor, having a first terminal for receiving said address signal;
 - a first FET, having a first terminal being coupled to a second terminal of said first resistor and outputting an inverted signal, a second terminal for receiving said selection signal, and a third terminal being coupled to a ground;
 - a second FET, having a first terminal for receiving said address signal, and a third terminal for outputting said buffer signal;
 - a third FET, having a first terminal being coupled to said first terminal and a second terminal of said second FET, a second terminal and a third terminal being coupled to said third terminal of said second FET; and
 - a fourth FET, having a first terminal being coupled to said third terminal of said second FET, a second terminal for receiving said inverted signal, and a third terminal being coupled to said ground.
15. (withdrawn) The printhead controller of claim 14, wherein a resistance of said first resistor ranges from 0.5k Ω to 500k Ω .
16. (withdrawn) The printhead controller of claim 14, wherein a resistance of said first resistor ranges from 20k Ω to 80k Ω .
- 17-20. (cancelled)